



DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH
BETHESDA, MARYLAND 20014

FEB 8 1973

Honorable Gaylord Nelson
United States Senate
Washington, D.C. 20510

Dear Senator Nelson:

Since my earlier letter to you dated November 29, 1972, on the matter of the possible etiologic impact of potato blight on the incidence of anencephaly and spina bifida, I am able to report some progress in the planning and initiation of research activities.

Outside of the Institute, Dr. Philip Cole of the Harvard School of Public Health has already begun a case-control study in the State of Massachusetts. He is mailing questionnaires to women who have given birth to babies with spina bifida and to appropriately selected controls in order to determine whether potato consumption rates differ in the two groups.

We are informed that Dr. Renwick, who recently summarized the epidemiologic evidence in favor of the potato blight hypothesis, is planning a design protocol for a prospective avoidance study to be carried out in England. This study starts with the observation that women who have previously given birth to babies with anencephaly and spina bifida have a relatively high recurrence rate (about 5%). Thus, it is his plan to contact a group of such women, urge them to avoid potatoes during any subsequent pregnancies and then follow these women for a period of years.

Within the Institute, epidemiologists and biostatisticians have been seriously considering different research approaches to acquiring more definitive data on the hypothesis. These scientists have concluded that major, large scale studies are not merited in view of the still tenuous nature of the evidence supporting the potato blight hypothesis. I agree with their recommendation. Certainly, well-controlled, randomized clinical trials must be ruled out simply on the basis of ethical considerations. However, we are giving serious attention to the possibility of less extensive studies and to the continued exploitation of available records in order to obtain additional confirmatory evidence.


Thus, we are exploring the possibilities of performing a case-control study in Egypt. This country is being considered because of the availability of PL 480 funds and because of presumably low potato consumption. We are also exploring the feasibility and need of a case-control study parallel to the one being conducted at Harvard. Our cases and controls would, of course, be selected from some other area.

During the past two months one of our epidemiologists has been investigating available data in the United States in order to confirm the correlational studies done earlier. Despite difficulties in obtaining reliable data on potato blight from year to year and place to place, he has carried out the following interesting analyses. The association between potato blight and anencephaly/spina bifida appears to hold as one moves from East to West with the occurrences of both phenomena being higher in the East and lower in the West. However, the positive association breaks down along North-South movements in the eastern United States where patterns of potato losses due to blight and infant death rates due to spina bifida are clearly in opposite directions. Furthermore, he found that in the United States there is a definite absence of seasonal variation in the reporting of these congenital malformations at birth. These observations add to the weaknesses in Renwick's original argument which I pointed out in my earlier letter.

In summary, the Institute's position at this time with regard to further research of the potato blight problem is to engage in moderately sized studies in the acquisition of more definitive data and secondly to continue to analyze existing data to tighten and confirm the epidemiologic evidence. If, as a consequence of any new findings, the evidence becomes much more convincing than it is now, we shall then consider larger scale studies.

Finally, we anticipate receiving research proposals in this area from the scientific community. Preliminary inquiries have already been made of the Institute as to our interest in supporting research of the effect of blighted potatoes in animals. We, of course, will invite such proposals.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Gerald D. LaVeck".

Gerald D. LaVeck, M.D.
Director
National Institute of Child Health
and Human Development